Electronic Version
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Claims

[c1] 1. A method for setting searching conditions, comprising the steps of:

(i.) reading a data type, name, caption, table, and database of data fields contained in a computerized processing form and displaying captions of data fields in a user interface;

(ii.) accepting at least two groups of: a searching subject corresponding to a data field, a comparison operator, and a searching value;

(iii.) combining the searching subject, comparison operator, and searching value of each group to generate at least two single searching conditions, and displaying the two single searching conditions;

(iv.) receiving a selection of at least two displayed single searching conditions, receiving a selected logic operator, combining the selected single searching conditions and the logic operator to generate a composite searching condition, and displaying the composite searching condition;

(v.) if the composite searching condition is not equal to a final desired searching condition, receiving a selection of at least two of: the single searching conditions or the

composite searching condition, receiving a second selected logic operator, and generating and displaying a new composite searching condition; and
(vi.) repeating step (v.) until any generated composite searching condition equals the final desired searching condition.

[c2] 2. The method of claim 1 wherein said data fields contained in the computerized processing form are from data fields of related tables in the database.

[c3] 3. The method of claim 1 wherein step (v.) further comprises accepting a new group of searching subject, comparison operator, and searching value; and generating and displaying a new single searching condition for selection.

[c4] 4. The method of claim 1 wherein reading the data type, name, caption, table, and database of data fields contained in the computerized processing form further comprises reading the data type of the selected searching subject and displaying appropriate comparison operators for the data type, wherein:
if the data type is string, displaying comparison operators including at least "=", "≠", "including", "beginning with", and "ending with";
if the data type is number, displaying comparison opera-

tors including at least "=", "≠", ">", "<", "

", and "

";

if the data type is date, displaying comparison operators including at least "=", "≠", ">", "<", "

", "

", "before ? days", and "in ? days"; and

if the data type is Boolean or selection list, displaying comparison operators including at least "=" and "≠".

[c5] 5. The method of claim 1 wherein reading the data type, name, caption, table, and database of data fields contained in the computerized processing form further comprises reading the data type of the selected searching subject and displaying and controlling the data type of the searching value, wherein:

if the selected searching subject data type is string, dis-

playing a space for inputting the searching value and controlling input to be a string data type;
if the selected searching subject data type is number or date and the selected comparison operator is "before ? days" or "in ? days", displaying a space for inputting the searching value and controlling input to be a number data type;
if the selected searching subject data type is date and the selected comparison operator is "=", "≠", ">", "<", "

", or "

", displaying a space for inputting the searching value and controlling input to be a date data type;
if the selected searching subject data type is Boolean, displaying selection items "YES" and "NO" for inputting the searching value; and
if the selected searching subject data type is selection list, displaying selection items of the selected searching subject for inputting the searching value.

[c6] 6. The method of claim 1 wherein when generating a composite searching condition or a new composite

searching condition, forming a hierarchy of the single search conditions and any composite searching condition.

[c7] 7. The method of claim 1 wherein step (iv.) further comprises receiving a delete command, and subsequently deleting a displayed searching condition identified by the delete command.

[c8] 8. The method of claim 1 wherein step (vi.) further comprises displaying retrieved results of a selected searching condition comprising:
accepting the selected searching condition;
accepting a displaying command; and
retrieving and displaying all data matching the selected searching condition.

[c9] 9. The method of claim 8, further comprising exporting the searching results to another file format comprising:
displaying captions of data fields for selection of data fields to be exported;
receiving selections of data fields and layers of grouping;
accepting an exporting command, and calculating a sum of countable data according to a layer of grouping of data fields; and
exporting the searching results by grouping and the sum to the other file format.

[c10] 10. The method of claim 1 wherein step (vi.) further comprises saving a selected searching condition comprising:
accepting the selected searching condition;
accepting a save command;
accepting input of a file name for the searching condition; and
saving the searching condition and its file name in a computer storage device.

[c11] 11. The method of claim 10, further comprising recording a user identification of the user who saved the searching condition and whether the saved searching condition is for private or public use.

[c12] 12. The method of claim 1, further comprising using a saved searching condition comprising:
accepting a load command;
displaying file names of saved searching conditions;
accepting a selected searching condition and a displaying command; and
retrieving and displaying all listed data matching the selected searching condition.

[c13] 13. The method of claim 12, further comprising deleting a saved searching condition comprising receiving a

delete command, and subsequently deleting a selected saved searching condition identified by the delete command.

[c14] 14. A method for setting searching conditions comprising:

reading a data type, name, caption, table, or database of data fields contained in a computerized processing form, wherein said data fields are from data fields of at least a related table in the database, and displaying captions of data fields in a user interface;

providing an input form for searching subject, comparison operator, and searching value; displaying and controlling input of a searching value according to a data type of the corresponding searching subject, and displaying comparison operators corresponding to the data type of the searching subject;

separately combining at least two groups of inputted searching subject, comparison operator, and searching value to generate at least two single searching conditions, and displaying the two single searching conditions;

combining at least two selected single searching conditions and a selected logic operator to generate a composite searching condition, and displaying the composite searching condition;

if any composite searching condition is not equal to a final desired searching condition, combining at least two of: the single searching conditions or the composite searching condition, according to a second selected logic operator, thereby generating and displaying a new composite searching condition; and
repeating the previous step until a composite searching condition equals the final desired searching condition.

[c15] 15. The method of claim 14 further comprising retrieving and displaying results of a selected single or composite searching condition in the user interface.

[c16] 16. The method of claim 14 further comprising combining a new group of inputted searching subject, comparison operator, and searching value to generate a new single searching condition, and displaying the new single searching condition.

[c17] 17. The method of claim 16 further comprising retrieving and displaying results of a selected single or composite searching condition in the user interface.

[c18] 18. The method of claim 14 further comprising providing an input form for saving, deleting, exporting, or displaying at least a single or composite searching condition.

[c19] 19. A method for setting searching conditions compris-

ing:

a step for reading a data type, name, caption, table, or database of data fields contained in a computerized processing form;

providing an input means for receiving searching subject, comparison operator, and searching value;

a step for controlling input of searching value and comparison operator according to searching subject;

a step for combining at least two groups of inputted searching subject, comparison operator, and searching value to generate at least two single searching conditions;

a step for combining at least two selected single searching conditions and a selected logic operator to generate a composite searching condition; and

determining whether the generated composite searching condition equals a final desired searching condition, and repeating the previous step until a generated composite searching condition equals the final desired searching condition.

[c20] 20. The method of claim 19 further comprising a step for combining single or composite searching conditions for generating a composite searching condition.

[c21] 21. The method of claim 19 further comprising:

providing a means for selecting a single or composite

search condition; and

providing a means for displaying at least a single or composite searching condition.

[c22] 22. The method of claim 21 further comprising:

providing a means for saving at least a single or composite searching condition, wherein access to the saved searching condition is restricted to a predetermined group;

providing a means for deleting at least a single or composite searching condition; and

providing a means for exporting at least a single or composite searching condition.